

Yitai Hu (State Bar No. 248085) (yhu@akingump.com)
Elizabeth H. Rader (State Bar No. 184963) (erader@akingump.com)
S.H. Michael Kim (State Bar No. 203491) (mkim@akingump.com)
AKIN GUMP STRAUSS HAUER & FELD LLP
Two Palo Alto Square
3000 El Camino Real, Suite 400
Palo Alto, California 94306-2112
Telephone: 650-838-2000
Facsimile: 650-838-2001

Attorneys for Defendants
ELAN MICROELECTRONICS, and
ELAN INFORMATION TECHNOLOGY GROUP

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN JOSE DIVISION

AVAGO TECHNOLOGIES GENERAL IP
PTE LTD. and AVAGO TECHNOLOGIES
ECBU IP PTE LTD., organized and
incorporated under the laws of Singapore,

Plaintiffs and Counterclaim-Defendants,

vs.

ELAN MICROELECTRONICS CORP., a
Taiwanese corporation, and ELAN
INFORMATION TECHNOLOGY GROUP, a
California Corporation,

Defendants and Counterclaim-Plaintiff.

Case No. C 04-5385 JW

**ELAN MICROELECTRONICS CORP.
AND ELAN INFORMATION
TECHNOLOGY GROUP'S NOTICE OF
MOTION AND MOTION FOR LEAVE
TO AMEND ITS FINAL INVALIDITY
CONTENTIONS**

Date: May 15, 2007
Time: 10:00a.m.
Judge: Howard R. Lloyd
Courtroom: 2, 5th Floor

NOTICE OF MOTION

TO PLAINTIFF AND ITS ATTORNEYS OF RECORD:

PLEASE TAKE NOTICE that on May 15, 2007 at 10:00 a.m., in Courtroom 2 of this Court located at 280 South First Street, San Jose, California, or as soon thereafter as the matter may be heard, Defendants Elan Microelectronics Corp. and Elan Information Technology Group (collectively "Elan") will and do move this Court for leave to amend its Final Invalidity Contentions ("FIC") under Patent L.R. 3-7 to add allegations of invalidity under 37 U.S.C. § 112, ¶1 for lack of written description and enablement. This motion is based upon this Notice of Motion, Memorandum of Points and Authorities,

1 and the Declaration of Elizabeth H. Rader filed herewith, and other papers and pleadings on file and on
 2 such other argument and evidence as may be presented to the Court at or prior to the hearing on this
 3 motion.

4 **MEMORANDUM OF POINTS AND AUTHORITIES**

5 **I. INTRODUCTION**

6 Elan seeks to amend its Final Infringement Contentions (“FICs”) to add allegations of invalidity
 7 under 37 U.S.C. § 112, ¶1 for lack of written description and enablement. This amendment is timely
 8 because the discrepancy between the Court’s claim construction and the disclosure in the asserted
 9 patents did not become clear until not only had the Court issued its constructions but the parties were
 10 invited to submit supplemental claim construction briefs after one round of summary judgment motions.
 11 Elan promptly raised the issue in a Request for Case Management Conference and letter to Elan’s
 12 counsel about the proposed motions for summary judgment. Claim construction has not yet been
 13 completed and discovery is still in progress. Good cause exists for this amendment because if the
 14 Court’s construction conveys the true scope of the patent, the patent specification fails utterly to put the
 15 public on notice of the scope of the patentee’s limited monopoly and does not enable one of ordinary
 16 skill in the art to practice what Avago *now* claims is its invention. Moreover, there is no prejudice to
 17 Avago because the invalidity argument Elan seeks to add is based not on newly discovered prior art, but
 18 entirely on documents that Avago has had in its possession as long as, or longer than, Elan has, including
 19 the patent itself. Furthermore, Elan gave Avago notice in its Request for Case Management Conference
 20 and in a letter to Elan’s counsel of the theories it planned to advance in its upcoming Motions for
 21 Summary Judgment and the Court has scheduled the motions so as to give Avago ample time to prepare
 22 its opposition. Avago will have known of Elan’s arguments for almost three months before its
 23 Memorandum in Opposition to Elan’s motions for Summary Judgment of Invalidity are due.
 24 Accordingly, the Court should permit Elan to amend its FICs to add its Section 112 defenses.

25 **II. STATEMENT OF FACTS**

26 Avago brought this action against Elan on December 20, 2004, alleging that Elan’s optical mouse
 27 sensor chips, OM01 and OM02, used in desktop optical mice infringe U.S. Patent Nos. 6,433,780 (“the
 28 ’780 patent”) and 5,786,804 (“the ’804 patent”). These chips are the “brains” of an optical mouse that

1 enable the mouse to track its movement and output motion signals to a computer to control the cursor on
2 a screen based on the amount and direction the mouse has moved on the desktop.

3 Regarding the '780 patent, Avago's predecessors, Hewlett Packard and Agilent Technologies, did
4 not invent the optical mouse. Instead, they made improvements over the optical mice others had
5 invented years earlier. One improvement involved considering the shape of a hypothetical "correlation
6 surface" representing plotted correlation values. If such plotted values are suspiciously uniform, a
7 computer user most likely picked up the optical mouse and relocated it on his desk. In that case, the
8 plotted correlation surface is flattened instead of having a "good bowl," and the optical mouse does not
9 output motion signals to the computer. Rader Decl., Ex. A at 7:22-38; 10:37-57; FIG. 5. The '780
10 patent's specification describes only one technique for obtaining correlation values, namely, comparing a
11 captured frame with *at least nine* different shifted comparison frames:

12 One way that may be done is to shift the entire content of one of the frames by a distance
13 of one pixel (corresponds to a photo detector), successively in each of the eight directions
14 allowed by a one pixel offset trial shift (one over, on over and one down, one down, one
15 up, one up and over one, on over in the other direction, etc.). That adds up to eight trials,
16 but we mustn't forget that there might not have been any motion, so a *ninth trial "null
17 shift"* is also required. After each trial shift those portions of the frames that overlap each
other are subtracted on a pixel by pixel basis, and the resulting differences are (preferably
squared and then) summed to form a measure of similarity (correlation) within that
region of overlap.

18 *Id.* at 3:62-4:7 (emphasis added). According to the '780 patent, at least "nine (or perhaps twenty-five)
19 correlation values are quickly computed," and these *nine or twenty-five values* are used to plot a
20 correlation surface and evaluate that surface's shape to determine whether to disable the output of
21 motion signals. *Id.* at 10:48-57; 10:58-11:2; 12:61-13:2; FIGS. 5, 7. After receiving the proprietary
22 source code for Elan's products from a third party, AMI Semiconductor, Inc. ("AMI"), pursuant to a
23 subpoena to AMI and under the Protective Order, on January 23, 2006, Avago amended its Preliminary
24 Infringement Contentions on April 26, 2006. Knowing, through discovery, that the OM01 and OM02
25 optical chips do not plot nine or twenty five (or any) correlation values or consider the curvature of a
26 "correlation surface," Avago asserted that:

27 Elan's OM01 and OM02 may determine (1) whether the difference between the high and
28 lowest minimum correlation values fails to exceed a threshold value (i.e., that
flatness/depth of the correlation surface), and (2) whether the correlation value
corresponding to the best-fit displacement is more than a one-pixel distance away from

1 the correlation value corresponding to the second best-fit displacement (i.e. the
2 smoothness of the correlation surface, in either of which case, motion signal are not
3 output to the computer . . .

4 Rader Decl., Ex. B (“Avago’s Amended PIC”) at 15.

5 In its August 18, 2006, Claim Construction Order, the Court held that the ’780 patent’s claimed
6 invention “determines a surface shape [correlation surface] by plotting multiple correlation values
7 and . . . blocks the transmission of motion data to the computer system if the result of the algorithm is
8 that the surface shape is not a suitable curvature.” Rader Decl., Ex. C at 6. In short, Avago contends
9 that the two mathematical operations Elan’s mouse may perform as an accuracy check amount to
10 evaluating the “smoothness” and “depth” of a correlation surface. Unfortunately for Avago, even if
11 “smoothness” and “depth,” evaluated by considering only two points, qualified as determining
12 “curvature,” the way Avago reads claim 4, it also reads on cover prior art that Elan identified in its Final
13 Invalidity Contentions. Rader Decl., Ex. D (“Elan’s FIC,”); *see, e.g.*, claim chart 2.

14 On July 11, 2006, Elan moved for Summary Judgment that Elan’s OM01 and OM02 chips do not
15 infringe the asserted claims of the ’780 and ’804 patents because they do not perform another step both
16 asserted claims require. Specifically, Elan’s chips never store or use the actual digitized values output
17 by the device’s photodetectors because they use a special filter to digitally enhance contrast between
18 light and dark areas of the image received and store the resulting values instead of the digitized photo
19 detector output values. Rader Decl., Ex. E at 6-7; and Ex. F at 6. On February 8, 2007, denying Elan’s
20 motions, the Court observed that the Court “has not yet construed the phrase: ‘digitized photo detector
21 output values’ as claimed by claim 4 of the ’780 patent” and, accordingly, invited the parties to submit
22 supplemental briefing on March 5, 2007 as to how this phrase should be construed and scheduled a
23 further claim construction hearing. Rader Decl., Ex. G at 4-5, 12. In its supplemental claim
24 construction brief, and at the March 23, 2007 further claim construction hearing, Elan argued that if this
25 term were construed to include filtered output values, as Avago contends it should be, the ’780 patent
26 does not satisfy the written description and enablement requirements of 35 U.S.C. § 112, ¶1 because
27 there is absolutely no support in the ’780 patent’s specification that the digitized photo detector values
28

1 that comprise a reference frame can be anything other than the numerical values directly output of an
 2 analog-to-digital converter. Rader Decl., Ex. H at 5.

3 In the process of preparing for the further Markman hearing and comparing the Court's
 4 construction with the patent's specification, Elan realized that the Court's claim construction of the
 5 phrase "a plurality of comparison frames, each being a shifted version of one of the reference frame or
 6 the sample frame, is correlated with the other of the reference frame or the sample frame to produce a
 7 corresponding plurality of correlation values and ascertain motion in the directions along the first and
 8 second axes" is unsupported by the '780 patent's specification to the extent that the Court construed
 9 "plurality" as requiring only "at least two frames." Rader Decl. at ¶ 10. The Court's construction of the
 10 entire claim phrase is **"at least two frames, each generated by shifting a sample frame or a reference
 11 frame, are compared with the other of a reference frame or a sample frame to provide the degree
 12 to which the frames are related. Such correlations produce a numerical representation of the
 13 degree of similarity between the frames. Such correlations are also used to ascertain motion in the
 14 directions along the first and second axes. A frame refers to a single image in a sequence of
 15 images."** Rader Decl., Ex. C at 5.

16 The '780 patent's specification simply does not teach how to detect motion and block motion
 17 signals when the mouse is probably airborne by generating only two comparison frames and comparing
 18 only two such frames to a captured frame. It teaches that *at least nine* comparison frames must be
 19 generated: one for each direction and the ninth representing the "null shift." Rader Decl. Ex. A at 3:62-
 20 4-7. Nor does the specification teach how to plot and evaluate a correlation surface if the mouse sensor
 21 chip obtains only two correlation values – it teaches that *at least nine* correlation values are necessary to
 22 define a correlation surface that can be used to determine whether or not to output motion signals.
 23 Without such written description and enabling disclosure, the '780 patent does not satisfy the written
 24 description and enablement requirements of 35 U.S.C. § 112, ¶ 1 with respect to the Court's construction
 25 of claim 4.

26 Elan filed a Request for Case Management Conference on March 15, 2007, stating Elan's intent
 27 to bring four summary judgment motions and asking the Court to set a briefing schedule. Rader Decl.,
 28 Ex. I. Elan explained that two of its anticipated motions are for summary judgment that Elan's accused

1 products do not infringe the asserted patent claims as the Court has construed them. The other two
 2 anticipated motions are for summary judgment that Avago's asserted claim 4 of the '780 patent, as
 3 construed, is invalid for among other things, lack of written description and enablement, and that
 4 Avago's asserted claim 14 of the '804 patent is invalid for anticipation, if construed as Avago contends
 5 in its Final Infringement Contentions (to cover a mouse that requires a work surface to track movement),
 6 and also lacks written description and enablement for a desktop mouse. *Id.* Elan also informed Avago
 7 of these positions in a March 12 letter from Elizabeth Rader to Alan Heinrich. Rader Decl. Ex. J.

8 On March 23, 2007, before the supplemental claim construction hearing was called, counsel for
 9 Avago informed counsel for Elan that Avago would move to strike Elan's anticipated Motions to the
 10 extent they argue lack of written description and enablement under 35 U.S.C. § 112, ¶ 1 because these
 11 invalidity arguments do not appear in Elan's FIC. Rader Decl. at ¶ 13. Following the hearing, the
 12 parties identified two dates for hearing of Elan's motions and Avago's anticipated cross motions for
 13 Summary Judgment of Infringement. Elan urged that the hearings be organized by patent, rather than by
 14 legal theory, so that its motions for noninfringement and invalidity concerning the same patent might be
 15 heard together. *Id.* at ¶ 14. On March 26, 2007, however, the Court issued a scheduling order setting
 16 the hearing on Elan's Motions for summary judgment that the asserted patents are invalid for June 5,
 17 2007 and setting the motions concerning infringement or noninfringement of the asserted patents for
 18 July 10, 2007. Rader Decl., Ex. K.

19 In light of Avago's statement of its intent to move to strike invalidity arguments that are not in
 20 Elan's FICs, Elan's counsel wrote to Avago's counsel advising of Elan's intent to move to amend its
 21 FICs to conform with the Request for Case Management Conference and allege that the claims are
 22 invalid for lack of written description and enablement under 35 U.S.C. 112, ¶ 1, and attached a draft
 23 amended FIC showing the proposed additions on pages 14 through 15. Rader Decl., Ex. L. Elan's
 24 counsel again contacted Avago's counsel on April 3, 2007, to determine if Avago would oppose Elan's
 25 motion to amend its FIC, and, if so, whether Avago would agree to the Court deciding this motion on the
 26 papers to avoid unnecessary burden on the Court. In a letter dated April 6, 2007, from Jonathan
 27 Steinsapir, Avago stated that it would not oppose Elan's motion for leave to amend its FIC, if Elan
 28 would stipulate that it would not to amend its FICs any further. Rader Decl., Ex. M. Because the Court

has not ruled on the supplemental claim construction for “digitized photo detector output values” and discovery is still ongoing, Elan may, in the many months before trial, discover good cause to move to further amend its FIC, though it does not anticipate doing so. Therefore, Elan could not agree to such a stipulation and therefore understands that Avago opposes this motion, though it hopes Avago may still change its position and file a statement of nonopposition.

III. ARGUMENT

A. **Elan Has Good Cause to Amend Its FIC Because the Court’s Construction for “Plurality of Comparison Frames” Has Important Invalidity Implications and Frustrates the Notice Function of Published Patents.**

A party may amend or modify its Final Invalidity Contentions by order of the Court, which shall be entered “only upon a showing of good cause.” Patent L.R. 3-7. Good cause exists here because whether the Court’s construction for “plurality of comparison frames” as “at least two comparison frames” renders Claim 4 invalid under 35 U.S.C. 112, ¶1, is a matter of public interest. The Federal Circuit “strongly encourages district courts to decide issues pertaining to invalidity when those issues have been presented to the court, particularly because patent validity has important public implications.” *Fresenius Med. Care Holdings, Inc. v. Baxter Intl, Inc.*, No. C03-1431, 2006 WL 1329997, at *6 (N.D. Cal. May 15, 2006). Indeed the Court, *after* reading the description of Elan’s anticipated motions for summary judgment, set a briefing schedule for Elan’s dispositive motions, as well as Avago’s cross-motions. This motion to amend Elan’s FICs to conform with its Request for CMC and its anticipated motions is made in order to strictly comply with Patent L.R. 3-7 and avoid unnecessary motion practice.

The written description requirement is one of the most important tenets of patent law because one important purpose of the written description requirement is to provide notice to the public as to the subject matter of the patent. *PSC Computer Prods. v. Foxconn Intl, Inc.*, 355 F.3d 1353, 1358 (Fed. Cir. 2004). United States patent law required a written description of the specific invention to be patented even before the law required an applicant for a patent to set forth patent “claims.” *See Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1561 (Fed. Cir. 1991), citing *Evans v. Eaton*, 20 U.S. (7 Wheat.) 356, 5 L.Ed. 472 (1822), applying the Patent Act of 1793. This is because one object of the specification is to provide a public, open record of what the patent does or does not protect:

...to put the public in possession of what the party claims as his own invention, so as ascertain if he claims anything that is in common use, or is already known, and to guard against prejudice or injury from the use of an invention which the party otherwise innocently suppose not to be patented. It is, therefore, for the purpose of warning an innocent purchaser, or other person using a machine, of his infringement of the patent; and at the same time, of taking from the inventor the means of practicing on the credulity or the fears of other person by pretending that his invention is more than what it really is, or different from its ostensible objects, that the patentee is required to distinguish his invention in his specification.

Evans at 434. *See also Vas-Cath.*, at 1561. Similarly, in *Bates v. Coe*, the Supreme Court explained:

Accurate description of invention is required by law, for several important purposes. 1. That the government may know what is granted, and what will become public property when the term of the monopoly expires. 2. That licensed persons desiring to practice the invention may know during the term how to make, construct, and use the invention. 3. That other inventors may know what part of the field of invention is unoccupied.

98 U.S. 31, 39 (1878). Indeed, before the Federal Circuit was even created, Courts had explained that the written description requirement prevents patentees from overreaching after the patent has issued:

Adequate description of the invention guards against the inventor's overreaching by insisting that he recount his invention in such detail that his future claims can be determined to be encompassed within his original creation.

Rengo Co. v. Molins Mach. Co., 657 F.2d 535, 551 (3d Cir.), *cert. denied*, 454 U.S. 1055 (1981).

Here, the inventors of the '780 patent let the public, and their competitors, believe that their claimed invention covered only one technique to avoid sending erroneous motion signals to a computer when the mouse has been lifted away from the work surface, that of comparing *at least nine* shifted comparison frames (*not two*) to a sample or reference frame to obtain *at least nine* correlation values, plotting those *at least nine* values to produce a correlation surface, and blocking transmission of motion signals if the result that the surface shape is not a suitable curvature. Rader Decl., Ex. A at 3:62-4:7. For example, referring to FIG. 5, the '780 patent states:

At step 33, COMPUTE CORRELATION VALUES, the *nine (or perhaps twenty-five) correlation values* are quickly computed by some heavy duty dedicated arithmetic hardware assisted by automatic address translation and a very wide path out of the memory arrays. At step 34, IS THE CORRELATION SURFACE SUITABLY CONCAVE?, the nature of the correlation surface described by the collection of correlation values computed in step 33 is examined. We want to know if it shaped like a bowl, and if so, "how much water will it hold," so to speak.

Id. at 10:48-57. Indeed, both parties explained the invention in their Claim Construction briefing,

1 animated demonstratives and oral arguments using nine comparison frames and nine correlation values.
 2 Both parties, being used to the term “plurality” in patents meaning “at least two, never identified
 3 “plurality” as a disputed claim term. Only when Elan examined the Court’s construction through the
 4 lens of the written description and enablement requirements, and realized the impossibility of plotting a
 5 “surface” from all the correlation values if *only two* comparison frames are generated and compared
 6 (and only two correlation values are thus calculated) that the complete disconnect between the Court’s
 7 construction of “plurality of comparison frames” and the specific invention described and disclosed to
 8 the public as the claimed invention in the ’780 patent came into sharp relief. A plot of only two points
 9 will never be shaped like a bowl. At that time, Elan promptly advised the Court and Avago that it would
 10 argue these grounds for invalidity. Rader Decl. at Exs. I and J.

11 “There is a stronger public interest in the elimination of invalid patents than in the affirmation of
 12 a patent as valid.” *Nestier Corp. v. Menasha Corp.-Lewisystems Div.*, 739 F.2d 1576, 1581 (Fed. Cir.
 13 1984). In light of the lack of nexus between the Court’s construction of Claim 4, which Avago has
 14 seized on to expand the scope of the patent far beyond what the patent specification discloses, the public
 15 interest in Elan’s bringing these grounds for invalidity before the Court is strong, and is more than
 16 sufficient cause to allow Elan to amend its invalidity contentions to set forth this argument.

17 **B. There Is No Prejudice To Avago Because Elan Has Given Avago Adequate Notice**
 18 **And Acted Diligently To Present This Invalidity Contention To The Court**

19 As a policy matter, the disclosure requirements of the patent local rules are “designed not to
 20 cement parties to certain argument, but rather to prevent sandbagging and any prejudice to an opposing
 21 party resulting from the tardy disclosure of relevant contentions and prior art.” *Funai Elecs. Co., Ltd. v.*
 22 *Daewoo Elecs. Corp.*, No. C04-01830, 20006 WL 3456607 at *2 (N.D. Cal. November 29, 2006).
 23 Here, Elan has neither sandbagged nor prejudiced Avago in any way by Elan’s attempt to amend its FIC.
 24 On the contrary, Elan has acted in good faith to timely present this argument to Avago and to the Court.

25 First, Elan’s Section 112 arguments are not based on any document or prior art reference of
 26 which Avago was unaware. As explained above, they are based on the text of Avago’s asserted patents
 27 themselves, documents with which Avago and its counsel should be thoroughly familiar. Furthermore,
 28 there is no prejudice to Avago. After the Court’s Order dated February 8, 2007, Elan acted diligently in

